CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 79-87

NPDES PERMIT NO. CA0037966

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF CALISTOGA
NAPA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. City of Calistoga (hereinafter called the Discharger) submitted a report of waste discharge dated May 18, 1979.

2. The Discharger proposes to treat and discharge waste from the City of Calistoga into the Napa River, a water of the United States, through an outfall at 38° 33' 34" North, latitude and 122° 33' 28" West, longitude. There is an outfall opposite the oxidation pond and another opposite the percolation pond but neither will be used unless there is an emergency.

   Waste will be discharged to the river only during the wet weather season from October 1st through May 15th. During the dry weather season, all wastewater will be reclaimed and that reclamation is covered by a separate set of waste discharge requirements adopted by the Board.

3. The Discharger provided the following information on the waste discharge:

   a. The treatment plant has the following design capacity:

Average dry weather flow	0.4 mgd
Peak secondary treatment flow	2.0 mgd
Peak tertiary treatment flow	1.0 mgd
Maximum average tertiary treatment flow	0.8 mgd

   b. Present flows are:

Average dry weather flow	0.37 mgd
Maximum 1979 average monthly flow	0.75 mgd
Peak 1979 daily flow	1.85 mgd

   c. Maximum wet weather discharge to the river may be up to 2.0 mgd.

   d. The monthly waste discharge shall comply with the following limits:

Constituents	Milligrams per liter	Pounds per day
BOD	10	167
Suspended Solids	15	248
Oil and Grease	5	84

4. A Water Quality Control Plan for the San Francisco Bay Basin was adopted by the Board in April 1975. The Basin Plan contains water quality objectives for the Napa River.

5. The beneficial uses of the Napa River downstream from the point of discharge are:

   a. Domestic water supply for irrigating family gardens.

   b. Agricultural water supply for stock watering, irrigation and frost protection.

   c. Water contact recreation.

   d. Fish migration and habitat.

   e. Preservation and enhancement of fish, wildlife and other aquatic resources.

   f. Esthetic enjoyment.

6. The waste discharge from City of Calistoga was governed by the NPDES Permit and Order No. 74-94 which allowed discharge to the Napa River. That Order and Order Nos. 73-46 and 77-49 are no longer applicable.

7. The Basin Plan prohibits discharge of wastewater which has characteristics of concern to beneficial uses into any nontidal water. An exception can be considered for wet weather and other discharges having a high initial dilution where the discharge is approved as a part of a reclamation project.

8. The Board finds that the Napa River is a nontidal water at Calistoga but the discharge, under the requirements of this order, complies with the qualification in Finding 7 for considering an exception to the prohibition against discharge to nontidal water and the Board allows the discharge.

9. The Discharger prepared an Environmental Impact Report dated December 1976 in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) for the sewerage improvements that were constructed.

10. The sewerage improvements, as constructed, have the following significant effect on the environment:

    Discharge of waste to Napa River continues, but the quality of the waste being discharged is improved.

11. Discharge Prohibitions C.2. and C.3. and Provision D.7. mitigate the adverse environmental impact of the sewerage improvements project and, therefore, compliance with waste discharge requirements will eliminate significant adverse effect on the environment.

12. Effluent limitations, toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act are applicable to the discharge.

13. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

14. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

A. Effluent Limitations

1. The discharge of an effluent to water of the United States in excess of the following limits is prohibited:

Constituents	Units	30-Day Average	Daily Maximum	Instantaneous Maximum
a. Settleable Matter	ml/l/hr	0.1		0.2
b. BOD	lbs/day	167	334	
	(kg/day)	76	152	
	mg/l	10	20	
c. Suspended Solids	lbs/day	248	496	
	(kg/day)	113	226	
	mg/l	15	30	
d. Grease & Oil	lbs/day	84	168	
	(kg/day)	38	76	
	mg/l	5	10	
e. Turbidity	TU		10 for at least 95% of the time for a 24-hr period	
f. Chlorine Residual	mg/l			0.0

2. The arithmetic mean of the values for BOD and Suspended Solids effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times, during the same period. (85 percent removal)

3. The waste as discharged or at some point in the treatment process shall meet the following quality limits at all times:

Total Coliform Organisms:	2.2 MPN/100 ml, median of bacteriological results for the last seven days, for which analyses have been completed, maximum.

4. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.

5. In any representative set of samples the waste as discharged shall meet the following limit of quality:

Toxicity:

The survival of test organisms acceptable to the Board in 96 hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.

6. Representative samples of the effluent shall not exceed the following limits by more than the percentage of time indicated:

Constituent	Unit of Measurement	50% of time	10% of time
Arsenic	mg/l (kg/day)	0.01 (0.076)	0.02 (0.151)
Cadmium	mg/l (kg/day)	0.02 (0.151)	0.03 (0.227)
Total Chromium	mg/l (kg/day)	0.005 (0.038)	0.01 (0.076)
Copper	mg/l (kg/day)	0.2 (1.513)	0.3 (2.270)
Lead	mg/l (kg/day)	0.1 (0.756)	0.2 (1.513)
Mercury	mg/l (kg/day)	0.001 (0.008)	0.002 (0.015)
Nickel	mg/l (kg/day)	0.1 (0.757)	0.2 (1.513)
Silver	mg/l (kg/day)	0.02 (0.151)	0.04 (0.303)
Zinc	mg/l (kg/day)	0.3 (2.270	0.5 (3.783)
Cyanide	mg/l (kg/day)	0.1 (0.757)	0.2 (1.513)
Phenolic Compounds	mg/l (kg/day)	0.5 (3.783)	1.0 (7.566)
Total Identifiable Chlorinated Hydrocarbons (a)	mg/l (kg/day)	0.002 (0.015)	0.004 (0.030)

(a) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyles, and other identifiable chlorinated hydrocarbons.

7. The boron concentration of wastewater discharged to the Napa River shall be minimized.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the United States at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the United States at any place:

a.	Dissolved oxygen	7.0 mg/l, minimum
b.	Dissolved sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Nutrients	50 ug chlorophyll a/l, maximum
e.	Un-ionized ammonia as N	0.025 mg/l, annual median 0.4 mg/l, maximum

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Discharge Prohibitions

1. There shall be no bypass or overflow of untreated wastewater to waters of the State either at the treatment plant or from the collection system.

2. This discharge to the Napa River is prohibited during the period from May 16 through September 30th each year. (Executive Officer may grant requested date extension when yearly rainfall is abnormally high).

3. This discharge to the Napa River is, also, prohibited at any time that the volumetric dilution in the river is equal to or less than 10:1 (river flow to wastewater discharge).

4. The average dry weather flow shall not exceed 0.4 mgd. Average shall be determined over three consecutive months each year.

5. The wastewater discharge to the river shall not exceed 2.0 mgd.

D. Provision

1. The Discharger shall have and enforce a source control program approved by the Executive Officer which contains at least the powers and authorities contained in the State Water Resources Control Board's "Guidelines for Determining the Effectiveness of Local Source Control Programs."

2. The Discharger shall comply with the following time schedule to assure compliance with Discharge Prohibitions C.4 and C.5 or expand sewerage capacity:

Task	Completion Date
a. Submit report on when full capacity of treatment and reclamation facilities will be utilized.	July 1, 1980
b. Submit schedule of actions to be taken to expand the treatment and reclamation facilities before their capacity is exceeded.	July 1, 1980

3. The Discharger shall comply with the following time schedule to assure compliance with Effluent Limitation A.7 and Provision D.1.

Task	Completion Date
Submit report on how new discharges to the sewer with boron concentrations of more than 1 mg/l are being prevented and how existing boron concentration in the wastewater is being reduced.	July 1, 1980

4. This Board's Order Nos. 74-94, 77-49, and 73-46 are hereby rescinded.

5. The Discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions," dated April 1977.

6. The Discharger shall file with the Board technical reports on self-monitoring work performed according to detailed specifications as directed by the Executive Officer.

7. The Discharger shall promote and encourage increased reclamation of wastewater to reduce the amount of discharge to the river.

8. This Order expires July 1, 1984. The Discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9, of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 17, 1979.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions, Reporting Requirements, and Definitions, dated April 1977